**Week 1: Introduction to Professional Practice**

**Lab Objectives:**

By the end of this lab, students will be able to:

1. Explore and analyze different career paths in IT.
2. Identify key skills and qualifications required for various IT job roles.
3. Compare and contrast multiple job listings to understand market demands.

**Activity 1: Career Path Research & Presentation**

**Task:**

* Select **one or two IT career paths** (e.g., Cybersecurity, Data Science, Software Development).
* Conduct research on the **roles, responsibilities, required qualifications, and career trajectory**.
* Identify emerging trends in the chosen field.
* Create a **5-minute PowerPoint presentation (5–7 slides).**

**Instructions:**

1. Visit job advertisement websites in Australia such as:
   * [Seek](https://www.seek.com.au/)
   * [Indeed](https://au.indeed.com/)
   * [LinkedIn Jobs](https://www.linkedin.com/jobs/)
   * [Jora](https://au.jora.com/)
2. Collect relevant job postings and note required skills and qualifications.
3. Structure the presentation as follows:
   * **Slide 1:** Title & Student Information
   * **Slide 2:** Overview of the Career Path
   * **Slide 3:** Common Job Roles & Responsibilities
   * **Slide 4:** Required Skills & Qualifications
   * **Slide 5:** Career Growth Opportunities
   * **Slide 6:** Emerging Trends & Future Outlook
   * **Slide 7:** Conclusion & References
4. Submit the slide deck in **PDF or PPT format**.

**Expected Deliverable:**

A **5–7 slide PowerPoint presentation** that summarizes findings.

**Sample Answer:**

**Chosen Career Path: Cybersecurity Analyst**

* **Roles & Responsibilities:** Monitor networks, prevent cyber threats, conduct penetration testing.
* **Required Qualifications:** Bachelor's in IT, Certifications (CISSP, CEH), strong analytical skills.
* **Career Growth:** Cybersecurity Engineer → Security Consultant → CISO.
* **Emerging Trends:** AI in cybersecurity, zero-trust security models.

**Activity 2: Job Description Analysis**

**Task:**

* Find a **current IT job posting** related to your career interest.
* Analyze and extract **technical and soft skills** required.
* Identify any skill gaps you may have.

**Instructions:**

1. Visit **job advertisement websites** and select a recent IT job posting.
2. Copy the job description into a document and highlight:
   * Technical Skills (e.g., Python, cloud computing, networking)
   * Soft Skills (e.g., teamwork, problem-solving, communication)
   * Certifications (if mentioned)
3. Write a **100–150-word summary** analyzing the job posting.
4. Highlight any skill gaps you might have and propose steps to bridge them.

**Expected Deliverable:**

A **written summary (100–150 words) or an annotated job description** highlighting key qualifications.

**Sample Answer:**

**Job Title:** Graduate Software Developer at XYZ Tech

* **Technical Skills:** Java, Python, SQL, Agile methodology.
* **Soft Skills:** Problem-solving, teamwork, adaptability.
* **Certifications:** AWS Certified Developer (Preferred).
* **Skill Gap Analysis:** I need to improve my SQL skills and obtain AWS certification.

**Activity 3: Comparative Job Listings**

**Task:**

* Find **three** IT job listings (entry-level or graduate roles).
* Compare their **requirements, responsibilities, and salary (if available).**
* Present the comparison in a **table format**.

**Instructions:**

1. Search for **three entry-level IT job postings** on Seek, Indeed, or LinkedIn.
2. Record the following details in a table:
   * Job Title
   * Company Name
   * Required Technical Skills
   * Required Soft Skills
   * Preferred Certifications
   * Salary Range (if available)
3. Summarize your findings and note trends in required qualifications.

**Expected Deliverable:**

A **comparative table** showcasing three IT job listings and their key requirements.

**Sample Answer:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Job Title** | **Company** | **Technical Skills** | **Soft Skills** | **Certifications** | **Salary Range** |
| Graduate Data Analyst | ABC Analytics | Python, SQL, Tableau | Critical Thinking, Teamwork | Not Required | $65K–$75K |
| Junior Software Engineer | XYZ Tech | Java, Git, REST APIs | Problem-Solving, Communication | AWS Certified Developer | $70K–$80K |
| IT Support Technician | DEF Solutions | Windows, Networking, Helpdesk | Customer Service, Adaptability | CompTIA A+ | $55K–$65K |

**Trends Observed:**

* Most jobs require **Python, SQL, or Java** as core skills.
* **Soft skills** such as problem-solving and teamwork are commonly expected.
* Certifications like **AWS and CompTIA A+** are preferred but not mandatory.